The first phoretic association of *Procalvolia zacheri* (Oudemans)(Acari: Winterschmidtiidae) with *Aridius nodifer* (Westwood)(Coleoptera: Lathridiidae)—On the 16. x. 2002 three specimens of *Aridius nodifer* (Westwood), a cosmopolitan species, were collected from the final maturing room of an organic Cheddar cheese producer near Moreton-in-Marsh, Gloucestershire. The specimens were found on the floor and the traditional wooden shelving on which the cheeses stand. The environmental conditions in this store are maintained at 11–12 C and 80–90% relative humidity. Both the larvae and adults of *A. nodifer* are fungivorous, in this instance feeding on the moulds developing on the wooden shelves and quite possibly the cheese rinds.

A number of small (\sim 0.2 mm long) oval, shiny, pale brown hypopi were attached to the ventral surfaces of the beetles. The hypopus is a modified nymph found in the life cycle of some astigmatid mites. Depending on the mite genus, these occur in either a motile form adapted for phoretic dispersal, usually by attachment to other arthropods, or in an inert form adapted for survival under adverse conditions. The hypopi in this instance were typical of the motile form having the following characteristics: ovoid to round body, dorsoventrally flattened with a convex dorsal surface, robustly sclerotised, reduced mouthparts, well developed legs and possessing a specialised ventri-anal plate bearing suckers by which they attach themselves to a dispersal agent.

Sixteen hypopi were slide mounted and identified as *Procalvolia zacheri* (Oudemans) using the generic key provided by Fain & Rack (1987) and the species redescriptions given by Hughes (1962) (under the junior synonym *Calvolia*

romanovae Zatchvatkin, 1941) and Fain (1972).

Procalvolia zacheri is rarely reported and nothing is known of its biology. Most specimens have been taken from damp mouldy substrates or found attached to insects associated with such environments. The few published records indicate that P. zacheri only occurs in Europe, currently: England, near Moreton-in-Marsh, Gloucestershire, hypopi on A. nodifer, reported here; Liverpool University Veterinary Faculty Field Station, Wirral, hypopi on Stomoxys calcitrans (L.) (Diptera: Muscidae), collected in the proximity of farm buildings (McGarry & Baker, 1997); Germany, Berlin, hypopi collected from mildewed cheese (Oudemans, 1929); northwest Germany, unspecified location, hypopi found in a bungalow with Ahasvera advena (Waltl)(Coleoptera: Silvanidae) and Lathridius minutus (L.) (Coleoptera: Lathridiidae), one specimen attached to the latter (Rack, 1980) and Russia, Moscow, two females in stored wheat and associated with Acarus siro L. (Acari: Acaridae) (Zachvatkin, 1941).

The descriptions of the adults and hypopi of *P. zacheri* provided by Hughes (1962) were from fresh specimens 'found on New Zealand cheese by E. Powell'. Presumably these were collected in the UK, but the exact origin of these mites is not clear. Hughes also synonymised *P. zacheri* with *Calvolia tarsinofracta* Türk & Türk, a species found on rotting potatoes in Erlangen, Germany, however Rack (1980)

provides evidence that this synonymy is not justified.

Thanks to our colleague Mr. D. W. Collins for his identifications of *A. nodifer*.— J. C. Ostojá-Starzewski & B. B. Thind, Central Science Laboratory (CSL) Department for the Environment, Food and Rural Affairs (DEFRA) Sand Hutton, York, YO41 1LZ, UK.

REFERENCES

Fain, A. 1972. Notes Sur Les Hypopes Des Saproglyphidae (Acarina: Sarcoptiformes) II Redéfinition Des Genres. *Acarologia* 14: 225-249.

- Fain, A. & Rack, G. 1987. *Allocalvolia habrocytus* gen. n., sp. n. (Acari, Winterschmidtiidae) a new hypopus phoretic on *Habrocytus elevatus* (Walker, 1834) (Hymenoptera, Pteromalidae) in Austria. *Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg* Band 8. Nr.129: 309–318.
- Hughes, A. M. 1962. The genus Calvolia Oudemans, 1911 (Acari: Sarcoptiformes). *Acarologia* 4: 48–63.
- McGarry, J. W. & Baker, A. S. 1997. Observations on the mite fauna associated with adult *Stomoxys calcitrans* in the UK. *Medical and Veterinary Entomology* 11: 159–164.
- Oudemans, A. C. 1929. Acarologische Aanteekeningen, 10. Entomologische Berichten 8. No. 170: 28–36.
- Rack, G. 1980. *Procalvolia zaclieri* (Oudemans, 1929) in einem Neubau bei Stade (Acarina, Sarcoptiformes, Saproglyphidae). *Entomologische Mitteilungen aus dem Zoologischen Museum Hamburg* Band 6. Nr.107: 303–307.
- Zakhvatkin, A. A. 1941. Fauna of U.S.S.R. Arachnoidea Vol. VI No.1 Tyroglyphoidea (Acari). English Translation by Ratcliffe, A. & Hughes, A. M. 1959. *American Institute of Biological Sciences, Washington.* 1–573.

Rhyzobins chrysolemoides (Herbst) (Coleoptera: Coccinellidae) new to Kent.—On 7.v.2002, I collected a single specimen of Rhyzobius from Downham Woodland Walk, near Bromley, in south-east London. When I came to identify it, I thought the upper surface marks looked slightly different to the common R. litura (Fab.) and that the underside character of the prosternal carinae made it R. chrysomeloides (Hawkins, R. 2001. British Journal of Entomology and Natural History 13: 193–195). However, having previously thought I had both species only to discover that I had both sexes of R. litura, I sent the specimen to Roger Booth for confirmation.

He almost did not bother to dissect it, because the pronotal shape suggested that it was *R. litura*. However, caution got the better of him and he was able to confirm from the distinctive male genitalia that it was, indeed, *R. cluysomeloides*. My thanks go to him for his help.

Since its discovery, this beetle has been found in several Surrey localities (Hawkins, R. 2000, *Ladybirds of Surrey*, Surrey Wildlife Trust) and in Berkshire (R. Booth, pers. comm.). This appears to be the first Kent record.

Downham Woodland Walk is a narrow zigzag wooded path between dense 1930s housing near Bromley, vice-county 16, 'West Kent'. It is only a few metres wide, but existed as a narrow woodland long before the London urban sprawl engulfed it—it is clearly shown on a map of 1805, bounding the park attached to Southend Manor House and surrounded by open fields. A number of very interesting dead-wood beetles are recorded (Jones, in preparation).

The *Rhyzobius* was collected at the tail end of the walk, where it becomes a mown grass verge under oak and poplar trees and where some hawthorns suggest there was once a hedge. Although I did not record how the specimen was collected (I took it merely as a voucher), it was probably beaten from the hawthorns, which were in flower at the time, or from an ivy-covered log which yielded the 'vulnerable' (RDB2) *Nephus quadrimaculatus* (Herbst) a few days earlier on 2.v.2002.—RICHARD A. JONES, 135 Friern Road, East Dulwich, London SE22 0AZ. Bugmanjones@hotmail.com